

# How can you prevent getting botulism?

Fortunately this deadly disease can be prevented. So when you prepare your fermented foods, keep these tips in mind.



**1** Wash your hands, your containers, and your food before you start preparing your food.

By washing your hands with soap and water, you wash away germs that you get from touching a contaminated surface. Also wash your food before preparing it. This reduces the germs, but does not remove all of them.



**2** Use proper methods when you prepare your Native foods.

Eating fermented food has some risk of botulism. To reduce your risk of botulism, ferment food by using the traditional method of a grass-lined hole in the ground. **Don't use plastic or glass containers.**

Use salt when drying fish. Salt is a natural preservative and reduces the chance that botulism will grow.



**3** Ferment food at a cold temperature.

Keep food cold by fermenting it in the ground away from the sun.



**4** Boil your food before eating it.

Boiling fermented food for 10 minutes can destroy the botulism poison. It might change the taste from what you are used to. But it is one way to protect you and your family from botulism.



**5** When in doubt, throw it out.

It is much better to throw out food that might be contaminated than to eat it and get sick or lose the life of a loved one.



For more information, contact:

Your health care provider

or

Arctic Investigations Program,  
Centers for Disease Control and Prevention (CDC)  
(907) 729-3400

[www.cdc.gov/ncidod/aip/aip.htm](http://www.cdc.gov/ncidod/aip/aip.htm)

or

Section of Epidemiology,  
Alaska State Health Department  
(907) 269-8000



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Botulism is a serious disease caused by one of the deadliest poisons there is. Alaska has more cases of botulism than any other state in the country. People have usually gotten botulism from eating traditional Alaska Native foods, especially fermented foods.

### What are the symptoms?

Symptoms vary from person to person. But they usually begin 18 to 36 hours after eating food containing the botulism poison. They can show up as early as 6 hours or as late as 10 days after eating, depending on how much poison is in the food.

Symptoms start at the head and move down both sides of the body to the shoulders. They can include:

- Blurry vision
- Drooping eyelids
- Trouble swallowing
- Trouble breathing
- Double vision
- Slurred speech
- Dry mouth
- Muscle weakness

The muscle weakness affects both sides of the body. It starts at the head and moves down to the shoulders, arms, hands, legs, and feet, making it difficult to move. Breathing muscles could also stop working and the patient could die.

Many people also have:

- Nausea
- Vomiting
- Stomach ache
- Diarrhea

Fever is not a symptom of botulism. Prompt, medical attention can save a life. The sooner you can seek medical care, the sooner the botulism disease can be diagnosed and treated.

### What causes botulism?

Botulism is caused by eating foods that contain the botulism poison. And this poison, or toxin, is one of the most deadly poisons in the world. Just a teaspoon of pure botulism poison could kill millions of people. But you can't see it, or smell it, or taste it. The only way to know for sure whether a food contains the botulism poison is through laboratory tests. So if you think you may have botulism, it is very important not to throw out leftovers from food that has recently been eaten. The food can be very valuable for testing to determine whether or not the botulism poison is in the food.

### Who can get botulism?

Any one at any age can get botulism. Even people who have had botulism before can get it again. The only way you can get botulism is by eating food contaminated with the botulism poison. Almost all cases of botulism in Alaska are associated with traditional Native foods like:

- Stinky heads
- Stinky eggs
- Seal oil
- Fermented beaver tail, seal, and walrus
- Dried unsalted fish

More cases of botulism occur in summer because that's when more fermented foods are prepared and eaten. But people also get it during other parts of the year. In addition, people do not get botulism from another person. Many people eat fermented food and don't get sick. So not all fermented food contains botulism poison.

Making fermented fish heads in plastic containers with tight-fitting lids is an ideal growing situation for the botulism germs. If you make fish heads in a plastic container with tight-fitting lids, your risk of getting botulism is much higher. It takes just a tiny bit of botulism poison to make you sick, so when a family eats together, it can make the whole family sick. Although preparing fermented food by using traditional methods appears to be safer, eating any fermented food has some risk of botulism. If you have eaten food you think made you sick, be sure to save it so it can be tested.

### What treatment is available?

Fortunately, antitoxin and medical treatment are available for this deadly disease. If it is diagnosed early, patients can be treated with a life-saving medicine called antitoxin. It does not make everything go away that has already happened, but it makes the toxin that is still in their body less likely to cause further problems.

Home remedies (such as taking aspirin, milk, or drinking seal oil) do not make this problem go away. The only treatment available is antitoxin from your health care facility. If you think you have botulism poisoning, seek medical attention quickly because the sooner you are treated, the better your chance of surviving botulism and the faster you could get better.

